

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
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Application Serial Number: 10/S82,861  
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## RAW SEQUENCE LISTING

DATE: 04/27/2007

PATENT APPLICATION: US/10/582,861

TIME: 11:13:21

Input Set : A:\2007-04-21 4456-0109PUS1.ST25.txt

Output Set: N:\CRF4\04272007\J582861.raw

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3 <110> APPLICANT: Nobuo SAKAGUCHI et al.
5 <120> TITLE OF INVENTION: ANTI-HIV ANTIBODY
7 <130> FILE REFERENCE: 4456-0109PUS1
9 <140> CURRENT APPLICATION NUMBER: US 10/582,861
10 <141> CURRENT FILING DATE: 2006-06-14
12 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/003046
13 <151> PRIOR FILING DATE: 2004-03-09
15 <150> PRIOR APPLICATION NUMBER: JP 2003-418655
16 <151> PRIOR FILING DATE: 2003-12-16
18 <160> NUMBER OF SEQ ID NOS: 9
20 <170> SOFTWARE: PatentIn version 3.2
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 6429
24 <212> TYPE: DNA
25 <213> ORGANISM: Mus musculus
28 <220> FEATURE:
29 <221> NAME/KEY: CDS
30 <222> LOCATION: (384)..(6299)
32 <400> SEQUENCE: 1
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35 gCGacagtgg ccgtatctgg cggacttgct cctccctccg cggcctccgc tgtcccttgt      120
37 gtctttgccc agttgtctgaa ggccttcact agtcttcgct cgaaggcgtc tgtaacctta      180
39 gcggccggct tccggagtgt taagcatcgg ggataaaaag ctattatttc tagaccaggg      240
41 catcgcaagt tcgagttacc gggagaaaaa tgagatggtc atcctgagga tgaaggagag      300
43 cttcccctgg caacagataa tttaaagagg agagctactt gtgtatagtc catatttatt      360
45 gccttcagat aattggcttg aag atg cac ccg gtg aac ccc ttc gga ggc agc      413
46                               Met His Pro Val Asn Pro Phe Gly Gly Ser
47                               1           5           10
49 agc cca agt gct ttt gcg gta tct tcc agc acc acg gga aca tat cag      461
50 Ser Pro Ser Ala Phe Ala Val Ser Ser Ser Thr Thr Gly Thr Tyr Gln
51                               15           20           25
53 act aaa tca cca ttt cga ttt ggc cag cct tcc ctt ttt gga cag aac      509
54 Thr Lys Ser Pro Phe Arg Phe Gly Gln Pro Ser Leu Phe Gly Gln Asn
55                               30           35           40
57 agc aca ccc agc aag agc ctg gcg ttt tca caa gta cca agc ttt gca      557
58 Ser Thr Pro Ser Lys Ser Leu Ala Phe Ser Gln Val Pro Ser Phe Ala
59                               45           50           55
61 aca ccc tct gga gga agc cat tct tcc tcc ttg cca gca ttt gga ctc      605
62 Thr Pro Ser Gly Gly Ser His Ser Ser Ser Leu Pro Ala Phe Gly Leu
63                               60           65           70
65 acc caa acc tca agt gtg gga ctc ttc tct agt ctc gaa tcc aca cct      653
66 Thr Gln Thr Ser Ser Val Gly Leu Phe Ser Ser Leu Glu Ser Thr Pro
67 75                               80                               85                               90

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69 tct ttc gca gct act tcg agt tcc tct gtg ccc ggc aat acg gca ttc      701
70 Ser Phe Ala Ala Thr Ser Ser Ser Ser Val Pro Gly Asn Thr Ala Phe
71                               95                               100                               105
73 agc ttt aag tca acc tct agc gtt ggg gtt ttc cca agt ggc gct act      749
74 Ser Phe Lys Ser Thr Ser Ser Val Gly Val Phe Pro Ser Gly Ala Thr
75                               110                               115                               120
77 ttt ggg cca gaa acc gga gaa gta gca ggt tct ggc ttt cgg aag acg      797
78 Phe Gly Pro Glu Thr Gly Glu Val Ala Gly Ser Gly Phe Arg Lys Thr
79                               125                               130                               135
81 gaa ttc aag ttt aaa cct ctg gaa aat gca gtc ttc aaa ccg ata ccg      845
82 Glu Phe Lys Phe Lys Pro Leu Glu Asn Ala Val Phe Lys Pro Ile Pro
83                               140                               145                               150
85 ggg cct gag tca gag cca gaa aaa acc cag agc cag att tct tct gga      893
86 Gly Pro Glu Ser Glu Pro Glu Lys Thr Gln Ser Gln Ile Ser Ser Gly
87 155                               160                               165                               170
89 ttt ttt aca ttt tcc cat ccc gtt ggt agc ggg tct gga ggc ctg acc      941
90 Phe Phe Thr Phe Ser His Pro Val Gly Ser Gly Ser Gly Gly Leu Thr
91                               175                               180                               185
93 cct ttt tct ttc cca cag gtg aca aat agt tcg gtg act agc tca agt      989
94 Pro Phe Ser Phe Pro Gln Val Thr Asn Ser Ser Val Thr Ser Ser Ser
95                               190                               195                               200
97 ttt atc ttt tcg aaa cca gtt act agt aat act cct gcc ttt gcc tct      1037
98 Phe Ile Phe Ser Lys Pro Val Thr Ser Asn Thr Pro Ala Phe Ala Ser
99                               205                               210                               215
101 cct ttg tct aac caa aat gta gaa gaa gag aag agg gtt tct acg tca      1085
102 Pro Leu Ser Asn Gln Asn Val Glu Glu Glu Lys Arg Val Ser Thr Ser
103                               220                               225                               230
105 gcg ttt gga agc tca aac agt agc ttc agt act ttc ccc aca gcg tca      1133
106 Ala Phe Gly Ser Ser Asn Ser Ser Phe Ser Thr Phe Pro Thr Ala Ser
107 235                               240                               245                               250
109 cca gga tct ttg ggg gag ccc ttc cca gct aac aaa cca agc ctc cgc      1181
110 Pro Gly Ser Leu Gly Glu Pro Phe Pro Ala Asn Lys Pro Ser Leu Arg
111                               255                               260                               265
113 caa gga tgt gag gaa gcc atc tcc cag gtg gag cca ctt ccc acc ctc      1229
114 Gln Gly Cys Glu Glu Ala Ile Ser Gln Val Glu Pro Leu Pro Thr Leu
115                               270                               275                               280
117 atg aag gga tta aag agg aaa gag gac cag gat cgc tcc ccg agg aga      1277
118 Met Lys Gly Leu Lys Arg Lys Glu Asp Gln Asp Arg Ser Pro Arg Arg
119                               285                               290                               295
121 cat tgc cac gag gca gca gaa gac cct gat ccc ctg tcc agg ggc gac      1325
122 His Cys His Glu Ala Ala Glu Asp Pro Asp Pro Leu Ser Arg Gly Asp
123                               300                               305                               310
125 cat ccc cca gat aaa cgg cca gtc cgc ctc aac aga ccc cgg gga ggt      1373
126 His Pro Pro Asp Lys Arg Pro Val Arg Leu Asn Arg Pro Arg Gly Gly
127 315                               320                               325                               330
129 act ttg ttt ggc cgg aca ata cag gag gtc ttc aaa agc aat aaa gag      1421
130 Thr Leu Phe Gly Arg Thr Ile Gln Glu Val Phe Lys Ser Asn Lys Glu
131                               335                               340                               345
133 gca ggc cgc ctg ggc agc aag gaa tcc aag gag agt ggc ttt gcg gaa      1469

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134 Ala Gly Arg Leu Gly Ser Lys Glu Ser Lys Glu Ser Gly Phe Ala Glu
135          350          355          360
137 cct ggg gaa agt gac cac gcg gcc gtc cca gga ggg agt cag tcc acc      1517
138 Pro Gly Glu Ser Asp His Ala Ala Val Pro Gly Gly Ser Gln Ser Thr
139          365          370          375
141 atg gta cct tcc cgc ctt cca gct gtg act aaa gag gaa gaa gaa agt      1565
142 Met Val Pro Ser Arg Leu Pro Ala Val Thr Lys Glu Glu Glu Glu Ser
143          380          385          390
145 aga gat gag aaa gaa gat tct ctc agg gga aag tct gtg cgc cag agt      1613
146 Arg Asp Glu Lys Glu Asp Ser Leu Arg Gly Lys Ser Val Arg Gln Ser
147 395          400          405          410
149 aag cga agg gaa gag tgg atc tac agc ctc ggg ggc gtg tct tct tta      1661
150 Lys Arg Arg Glu Glu Trp Ile Tyr Ser Leu Gly Gly Val Ser Ser Leu
151          415          420          425
153 gag ctc aca gcc atc cag tgc aag aac atc ccc gac tac ctc aac gac      1709
154 Glu Leu Thr Ala Ile Gln Cys Lys Asn Ile Pro Asp Tyr Leu Asn Asp
155          430          435          440
157 aga gcc atc ctg gag aaa cac ttc agc aaa atc gct aaa gtc cag cgg      1757
158 Arg Ala Ile Leu Glu Lys His Phe Ser Lys Ile Ala Lys Val Gln Arg
159          445          450          455
161 gtc ttc acc aga cgc agc aag aag ctc gcc gtg att cat ttt ttc gac      1805
162 Val Phe Thr Arg Arg Ser Lys Lys Leu Ala Val Ile His Phe Phe Asp
163          460          465          470
165 cac gca tcg gca gcc ctg gct agg aag aag ggg aaa ggt ctg cat aag      1853
166 His Ala Ser Ala Ala Leu Ala Arg Lys Lys Gly Lys Gly Leu His Lys
167 475          480          485          490
169 gac gtg gtt atc ttt tgg cac aag aag aaa ata agt ccc agc aag aaa      1901
170 Asp Val Val Ile Phe Trp His Lys Lys Lys Ile Ser Pro Ser Lys Lys
171          495          500          505
173 ctc ttt ccc ctg aag gag aag ctt ggt gag agt gaa gcc agc cag ggc      1949
174 Leu Phe Pro Leu Lys Glu Lys Leu Gly Glu Ser Glu Ala Ser Gln Gly
175          510          515          520
177 atc gag gac tcc ccc ttt cag cac tcg cct ctc agc aag ccc atc gtg      1997
178 Ile Glu Asp Ser Pro Phe Gln His Ser Pro Leu Ser Lys Pro Ile Val
179          525          530          535
181 agg cct gca gcc ggc agc ctc ctc agc aaa agc tct cca gtg aag aag      2045
182 Arg Pro Ala Ala Gly Ser Leu Leu Ser Lys Ser Ser Pro Val Lys Lys
183          540          545          550
185 ccg agt ctt ctg aag atg cac cag ttt gag gcg gat cct ttt gac tct      2093
186 Pro Ser Leu Leu Lys Met His Gln Phe Glu Ala Asp Pro Phe Asp Ser
187 555          560          565          570
189 gga tct gag ggc tcc gag ggc ctt ggt tct tgc gtg tca tct ctt agc      2141
190 Gly Ser Glu Gly Ser Glu Gly Leu Gly Ser Cys Val Ser Ser Leu Ser
191          575          580          585
193 acc ctg ata ggg act gtg gca gac aca tct gag gag aag tac cgc ctt      2189
194 Thr Leu Ile Gly Thr Val Ala Asp Thr Ser Glu Glu Lys Tyr Arg Leu
195          590          595          600
197 ctg gac cag aga gac cgc atc atg cgg caa gct cga gtg aag agg acg      2237
198 Leu Asp Gln Arg Asp Arg Ile Met Arg Gln Ala Arg Val Lys Arg Thr

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202	Asp Leu Asp Lys Ala Arg Ala Phe Val Gly Thr Cys Pro Asp Met Cys			
203	620 625 630			
205	ccc gag aag gag cgg tac ttg agg gag acc cgg agc cag ctg agc gtg	2333		
206	Pro Glu Lys Glu Arg Tyr Leu Arg Glu Thr Arg Ser Gln Leu Ser Val			
207	635 640 645 650			
209	ttt gaa gtt gtc cca ggg act gac cag gtg gac cat gca gca gcc gtg	2381		
210	Phe Glu Val Val Pro Gly Thr Asp Gln Val Asp His Ala Ala Ala Val			
211	655 660 665			
213	aag gag tac agc cgg tcc tct gca gat cag gag gag ccc ctg cca cat	2429		
214	Lys Glu Tyr Ser Arg Ser Ser Ala Asp Gln Glu Glu Pro Leu Pro His			
215	670 675 680			
217	gag ctg aga ccc tca gca gtt ctc agc agg acc atg gac tac ctg gtg	2477		
218	Glu Leu Arg Pro Ser Ala Val Leu Ser Arg Thr Met Asp Tyr Leu Val			
219	685 690 695			
221	acc cag atc atg gac caa aag gaa ggc agc ctt cgg gat tgg tat gac	2525		
222	Thr Gln Ile Met Asp Gln Lys Glu Gly Ser Leu Arg Asp Trp Tyr Asp			
223	700 705 710			
225	ttc gtg tgg aac cgc acc cgg ggt ata cgg aag gac ata aca cag cag	2573		
226	Phe Val Trp Asn Arg Thr Arg Gly Ile Arg Lys Asp Ile Thr Gln Gln			
227	715 720 725 730			
229	cac ctc tgt gat ccc ctg acg gtg tct ctg atc gag aag tgt acc cga	2621		
230	His Leu Cys Asp Pro Leu Thr Val Ser Leu Ile Glu Lys Cys Thr Arg			
231	735 740 745			
233	ttt cac att cac tgt gcc cac ttt atg tgt gag gag cct atg tct tcc	2669		
234	Phe His Ile His Cys Ala His Phe Met Cys Glu Glu Pro Met Ser Ser			
235	750 755 760			
237	ttt gat gcc aag atc aac aat gag aac atg acc aag tgt cta cag agt	2717		
238	Phe Asp Ala Lys Ile Asn Asn Glu Asn Met Thr Lys Cys Leu Gln Ser			
239	765 770 775			
241	ctg aag gag atg tac cag gac ctg agg aac aag ggt gtt ttt tgt gcc	2765		
242	Leu Lys Glu Met Tyr Gln Asp Leu Arg Asn Lys Gly Val Phe Cys Ala			
243	780 785 790			
245	agt gaa gca gag ttt cag ggc tac aat gtc ctg ctt aat ctc aac aaa	2813		
246	Ser Glu Ala Glu Phe Gln Gly Tyr Asn Val Leu Leu Asn Leu Asn Lys			
247	795 800 805 810			
249	gga gac att ttg aga gaa gtg cag cag ttc cac cct gac gtt agg aac	2861		
250	Gly Asp Ile Leu Arg Glu Val Gln Gln Phe His Pro Asp Val Arg Asn			
251	815 820 825			
253	tcc cca gag gtg aac ttc gct gtc cag gct ttt gct gca ttg aac agc	2909		
254	Ser Pro Glu Val Asn Phe Ala Val Gln Ala Phe Ala Ala Leu Asn Ser			
255	830 835 840			
257	aat aat ttt gtg aga ttt ttc aaa ctg gtt cag tca gct tct tac ctg	2957		
258	Asn Asn Phe Val Arg Phe Phe Lys Leu Val Gln Ser Ala Ser Tyr Leu			
259	845 850 855			
261	aat gcg tgc ctg tta cac tgt tac ttt aat cag atc cgc aag gat gcc	3005		
262	Asn Ala Cys Leu Leu His Cys Tyr Phe Asn Gln Ile Arg Lys Asp Ala			
263	860 865 870			

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266	Leu	Arg	Ala	Leu	Asn	Val	Ala	Tyr	Thr	Val	Ser	Thr	Gln	Arg	Ser	Thr	
267	875				880					885					890		
269	gtc	ttc	ccc	ctg	gat	ggt	gtc	gtc	cgc	atg	ctg	ctg	ttc	aga	gat	agt	3101
270	Val	Phe	Pro	Leu	Asp	Gly	Val	Val	Arg	Met	Leu	Leu	Phe	Arg	Asp	Ser	
271					895					900					905		
273	gaa	gag	gcg	aca	aac	ttc	ctc	aat	tac	cat	ggc	ctc	act	gta	gct	gat	3149
274	Glu	Glu	Ala	Thr	Asn	Phe	Leu	Asn	Tyr	His	Gly	Leu	Thr	Val	Ala	Asp	
275					910					915					920		
277	ggc	tgt	gtt	gag	ctg	aat	cgg	tcg	gca	ttc	ttg	gaa	ccg	gag	gga	tta	3197
278	Gly	Cys	Val	Glu	Leu	Asn	Arg	Ser	Ala	Phe	Leu	Glu	Pro	Glu	Gly	Leu	
279					925					930					935		
281	tgc	aag	gcc	agg	aag	tca	gtg	ttt	att	ggc	cgg	aag	ctg	acg	gtg	tca	3245
282	Cys	Lys	Ala	Arg	Lys	Ser	Val	Phe	Ile	Gly	Arg	Lys	Leu	Thr	Val	Ser	
283		940								945					950		
285	gtt	ggg	gaa	gtt	gtg	aat	gga	ggg	ccg	ttg	ccc	cct	gtt	cct	cgc	cat	3293
286	Val	Gly	Glu	Val	Val	Asn	Gly	Gly	Pro	Leu	Pro	Pro	Val	Pro	Arg	His	
287	955					960					965					970	
289	aca	cct	gtg	tgc	agc	ttc	aac	tcc	cag	aat	aag	tac	gtt	gga	gag	agc	3341
290	Thr	Pro	Val	Cys	Ser	Phe	Asn	Ser	Gln	Asn	Lys	Tyr	Val	Gly	Glu	Ser	
291						975					980					985	
293	ctg	gct	acg	gag	ctg	ccc	atc	agc	act	cag	aga	gct	ggt	gga	gac	cca	3389
294	Leu	Ala	Thr	Glu	Leu	Pro	Ile	Ser	Thr	Gln	Arg	Ala	Gly	Gly	Asp	Pro	
295						990					995					1000	
297	gca	ggt	ggt	ggc	aga	gga	gag	gac	tgt	gag	gca	gag	gtg	gac	ttg		3434
298	Ala	Gly	Gly	Gly	Arg	Gly	Glu	Asp	Cys	Glu	Ala	Glu	Val	Asp	Leu		
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302	Pro	Thr	Leu	Ala	Val	Leu	Pro	Gln	Pro	Pro	Pro	Ala	Ser	Ser	Ala		
303						1020											
305	acg	ccg	gcg	ctt	cat	gtc	cag	cca	ctg	gcc	cca	gcc	gca	gca	ccc		3524
306	Thr	Pro	Ala	Leu	His	Val	Gln	Pro	Leu	Ala	Pro	Ala	Ala	Ala	Pro		
307						1035											
309	agc	ctt	ctc	cag	gcc	tcc	acg	cag	cct	gag	gtg	ctg	ctt	cca	aag		3569
310	Ser	Leu	Leu	Gln	Ala	Ser	Thr	Gln	Pro	Glu	Val	Leu	Leu	Pro	Lys		
311						1050											
313	cct	gcg	cct	gtg	tac	tct	gac	tcg	gac	ctg	gta	cag	gtg	gtg	gac		3614
314	Pro	Ala	Pro	Val	Tyr	Ser	Asp	Ser	Asp	Leu	Val	Gln	Val	Val	Asp		
315						1065											
317	gag	ctc	atc	cag	gag	gct	ctg	caa	gtg	gac	tgt	gag	gaa	gtc	agc		3659
318	Glu	Leu	Ile	Gln	Glu	Ala	Leu	Gln	Val	Asp	Cys	Glu	Glu	Val	Ser		
319						1080											
321	tcc	gct	ggg	gca	gcc	tac	gta	gcc	gca	gct	ctg	ggc	gtt	tcc	aat		3704
322	Ser	Ala	Gly	Ala	Ala	Tyr	Val	Ala	Ala	Ala	Leu	Gly	Val	Ser	Asn		
323						1095											
325	gct	gct	gtg	gag	gat	ctg	att	act	gct	gcg	acc	acg	ggc	att	ctg		3749
326	Ala	Ala	Val	Glu	Asp	Leu	Ile	Thr	Ala	Ala	Thr	Thr	Gly	Ile	Leu		
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329	agg	cac	gtt	gcc	gct	gag	gaa	gtt	tcc	atg	gaa	agg	cag	aga	cta		3794

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